

References

1. Gagliano D. Wireless ambulance telemedicine may lessen stroke morbidity. *Telemedicine Today* 1998; 22.
2. Garza MA. Telemedicine. The key to expanded EMS or an expensive experiment. *JEMS* 1998; 23(12):28-30, 32, 34-8.
3. Giovas P. Telecardiac monitoring from an ambulance. *Telemedicine Today* 1998; 26.
4. Armstrong IJ, Haston WS. Medical decision support for remote general practitioners using telemedicine. *J Telemed Telecare* 1997; 3:27-34.
5. Lambrecht CJ. Emergency physicians' roles in a clinical telemedicine network. *Ann Emerg Med* 1997; 30(5):670-4.
6. Davies P. Delivering emergency care - in a heartbeat. *Telemed Telehealth Networks* 1997; 28-32.
7. Morrissey J. How telemedicine eased ER's burden. *Modern Healthcare* 1996; 26(14):47-8, 53.
8. Brennan JA, Kealy JA, Gerardi LH, Shih R, Allegra J, Sannipoli L, Lutz D. Telemedicine in the emergency department: a randomized controlled trial. *J Telemed Telecare* 1999; 5:18-22.
9. Grigsby J. Current status of domestic telemedicine. *J Medical Sys* 1995; 19(1):19-27.
10. Wakefield DS, Kienzle MG, Zollo SA, Kash JB, Uden-Holman T. Health care providers' perceptions of telemedicine services. *Telemed J* 1997; 3(1):59-65.

Abstracts from the CAL/ACEP Scientific Assembly, Long Beach, CA 2002

Crotaline Fab Antivenom for the Treatment of Pediatric Rattlesnake Envenomation

Offerman SR, Bush SP, Moynihan JA, Clark RF

Objective: Pediatric cases comprise approximately 22% of rattlesnake envenomations in the U.S. The recent introduction of Crotaline Fab antivenom and withdrawal from the market of the traditional antivenom preparation has changed the way rattlesnake envenomation is treated. Although in some hospitals Crotaline Fab antivenom may be the only antivenom currently available, there is little data regarding its use in children. Our objective is to provide the first data regarding safety and effectiveness of this new drug in the pediatric population.

Methods: Data was collected prospectively and retrospectively for all pediatric rattlesnake envenomations treated at two urban hospitals during the year 2001. Cases were included if there were signs of envenomation at presentation, patient age 13 years or less, and administration of Crotaline Fab antivenom. Cases were excluded if Antivenin Crotalidae Polyvalent was given. Primary outcome variables were snakebite severity scores throughout the course of therapy, number of vials of Crotaline Fab antivenom given, occurrence of allergic reactions, need for surgical therapy, and the presence of permanent sequelae or serum sickness identified at telephone follow-up.

Results: In the 12 study cases, age ranged from 14 months to 13 years. (mean=6.9, sd=4.2) Presentation snakebite severity scores ranged from 2 to 9. (mean=5.3, sd=2.3) Total Crotaline Fab antivenom doses ranged from 4 to 22 vials. (mean=12.7, sd=5.4) Initial control of symptoms was achieved with 4-16 vials (mean=7.7, sd=3.7) and severity scores stabilized or improved within 24 hours in all patients. Recurrence of local swelling occurred in one case despite scheduled doses of antivenom. No cases required surgical intervention and no permanent sequelae were identified. No immediate or delayed hypersensitivity reactions occurred.

Conclusion: In this group of pediatric patients treated for rattlesnake envenomation, Crotaline Fab antivenom was safe and appeared to be effective.

SCIWORA is not just child's play: Analysis of the NEXUS data

Hendey GW, Wolfson AB, Mower WR,
Hoffman JR

Objective: Spinal cord injury without radiographic abnormality (SCIWORA) has been predominantly reported in case series of pediatric patients. Our objective was to better define the incidence and characteristics of patients with SCIWORA, using the National Emergency X-radiography Utilization Study (NEXUS) database of patients with blunt cervical spine trauma.

Methods: We conducted a prospective, observational study of all Emergency Department patients selected by physicians for plain cervical radiography after blunt trauma at 21 medical centers in the United States. Data available for analysis included the patient demographics, presence or absence of the NEXUS criteria, as well as the reports of all cervical spine-imaging studies performed. SCIWORA was strictly defined as the presence of spinal cord injury (SCI) as shown by magnetic resonance imaging (MRI), when a complete and technically adequate plain radiographic series revealed no injury.

Results: Of the 34,069 patients entered into the NEXUS database, there were 818 (2.4%) with SCI, including 27 (0.08%) patients with SCIWORA. Although the participating sites enrolled over 3000 pediatric patients (<18 years old), including 30 with SCI, there were no cases of SCIWORA in children. The most common findings on MRI, among patients with SCIWORA, were central disc herniation, spinal stenosis, and cord edema or contusion. The central cord syndrome was specifically described in 10 (37%) of the 27 cases.

Conclusions: Using strict, objective criteria, we found that SCIWORA was an uncommon disorder, and occurred only in adult patients in the large NEXUS cohort. This is likely due to a much higher overall incidence of SCI in adults compared to children.

The Effect of EM Residency Format on Pursuit of Fellowship Training and an Academic Career

Lubavin BV, Langdorf MI, Blasko BJ

Objectives: To determine which EM program format (PGY 1-3, 2-4 or 1-4) favors fellowship training or academic career.

Methods: Mailed survey of 122 program directors (PDs) of US EM residencies regarding number of graduates (1995-2000) who pursued fellowships, community practice (teaching/non-teaching), academics, advanced degree, and further residency, both immediately and after 3-5 years.

Results: 54.9% of programs responded regarding 2518 graduates (49.8% of all graduates). More 4-year format graduates pursued academics initially (2-4 vs. 1-3, OR=1.45, 95% CI: 1.15-1.82; 1-4 vs. 1-3, OR=2.20, CI: 1.71-2.82). PGY 1-4 favored academics vs. 2-4 (OR=1.52, CI: 1.14-2.02). 19.4% of 1-3 graduates chose academics, vs. 25.8% for 2-4, and 34.6% for 1-4. PGY 1-4 favored fellowship vs. both 2-4 and 1-3 (OR= 2.23, CI: 1.29-3.88, and OR=2.53, CI: 1.62-3.94, respectively). There was no difference in fellowship pursuit between PGY 1-3 and 2-4 programs. In all, 4.3% of 1-3 residents pursued fellowships, vs. 4.8% of 2-4, and 10.1% of 1-4. For 1995-97 graduates, more PGY 1-4 format graduates were still in academics vs. 1-3 and 2-4 (OR=1.88, CI: 1.28-2.83 and OR=1.68, CI: 1.04-2.72 respectively); there was no difference between PGY 1-3 and 2-4 formats. 219 of the 232 graduates (94.3%) who started out in academics remained there 3-5 years later. In aggregate, 5.2% of graduates pursued fellowships, while 23.1% pursued academics initially. 46/219 (21.0%) academic physicians from the 1995-97 classes were fellowship trained.

Conclusions and Limitations: 4-year formats, especially 1-4, favored fellowships and academics more than the 1-3 format. Fellowship pursuit was uncommon (4-10% of graduates), while 25-35% chose academics. Most new academic EPs, are not fellowship trained. Response rate and recall bias are limitations. Further study should elucidate reasons for these associations.

The Risk-Benefit Profile of Etomidate for Pediatric Rapid Sequence Intubation

Guldner G, Schultz J, Sexton P,
Fortner C, Richmond M

Objectives: Etomidate has become a preferred medication for adult rapid sequence intubation (RSI) due to its minimal effect on blood pressure. The manufacturer does not yet recommend its use in children under 10 due to a lack of data. Potential risks of etomidate include an association with myoclonus, seizures, emesis, and adrenal insufficiency. This study further elucidates the risk-benefit profile of etomidate for RSI in young children.

Methods: Trained abstractors reviewed the medical records for all children under 10 who received etomidate for RSI between July 1996 and October 1999. The study took place at a level one pediatric trauma center.

Results: 105 children, with an average age of 3, received a median dose of 0.32 mg/kg of etomidate. Indications for RSI included: trauma (64), pulmonary disease (23), ALOC (15), and "other" (11). The average blood pressure and pulse increased 4 mmHg (systolic), 7 mmHg (diastolic), and 10 bpm within 10 minutes of receiving etomidate. Complications included 3 patients who vomited within 10 minutes of etomidate administration (95% C.I. = 0.6% to 8.1%) –1 prior to, and 2 after intubation. There were no cases of myoclonus or status epilepticus. 43 patients received steroids during the hospital course, none for suspected adrenal insufficiency. Three patients died, all from severe brain injury. 1 in 5 patients had multiple attempts at intubation, but there were no failures.

Conclusions: In children less than 10, etomidate maintains the appeal of hemodynamic stability, and appears to have a low risk of adrenal insufficiency, myoclonus, and status epilepticus. The association between etomidate and emesis remains unclear. Thus, for clinical situations in which minimal blood pressure changes during RSI are critical, etomidate appears to have a favorable risk-benefit profile for these patients.

The Clinical Utility of Digital Rectal Examination in Adult Trauma Patients

Guldner GT, Babbitt J, Boulton M,
Feleke R, Hargrove J

Objectives: The American College of Surgeons has advocated digital rectal examination (DRE) in the evaluation of all adult trauma patients. Its clinical utility however is unclear. This study sought to determine if physical exam findings could allow omission of the DRE in an identifiable subset of adult trauma patients.

Methods: Trained abstractors reviewed the ED records of all adult trauma activations at a level I trauma center during 2000. Variables included the result of the rectal exam, physical examination, and discharge diagnoses.

Results: There were 733 adult trauma activations in 2000. 51 were excluded (6 records could not be located, 44 were intubated prior to arrival in the ED, 1 had pre-existing T12 paraplegia, 1 had spilled blood contaminating the rectum). 10 patients had DRE "deferred", 2 patients refused DRE, 6 patients died prior to a DRE, and 56 had no documentation of a DRE. There were 41 abnormal DREs (6.7%) in the remaining 607 patients. Abnormal findings included: 39 with decreased or absent tone, 1 with perianal lacerations, and 1 with a high-riding prostate. 7 of the 41 patients with abnormal DRE had no significant injury on discharge (false positives). 16 had spinal abnormalities, 16 had severe head injury, 1 had a urethral disruption, and 1 had peri-rectal lacerations (true positives). All patients with a true positive DRE had at least one of the following: abnormal neurological exam as evidenced by either extremity weakness or chemical paralysis for intubation (19), GCS < 15 (11), or extremity paresthesias (1), blood at the urethral meatus (1), complaints of rectal pain (1), or age over 75 (1).

Conclusions: Few trauma patients have abnormal DREs. Of those that do, all true positive abnormal DREs in this sample could be predicted by: an abnormal neurological exam, urethral blood, rectal pain, or age over 75. These results must be verified by a validation set.

Does the Addition of Parenteral Opiate Pre-Medication Increase Risk of Complications when combined with Methohexital for Procedural Moderate Sedation in the ED?

Austin T, Vilke GM, Nyheim E, Kelly D, Chan TC

Objectives: The goal of this study was to determine if the addition of parenteral opiate medications in combination with methohexital for moderate/procedural sedation in the ED increases the risk of respiratory or cardiovascular complications.

Methods: We conducted a review of an existing single ED database of all patients who underwent moderate and procedural sedation in which methohexital was administered over a 2-year period. This database included data on patient demographics, procedure, sedation medications, pre-, intra-, and post-procedure vitals signs and monitoring changes, procedural success, complications and management. Patients were stratified into 2 groups: those who were pre-medicated with parenteral opiates and those who were not. Significant respiratory and cardiovascular abnormalities and complications were defined aprior to data collection and analysis. Power analysis determined that 108 cases were needed to detect a 25% increase in complication rates. Statistical analysis was performed using Fisher's exact with $p < 0.05$ considered significant (STATA 6.0).

Results: During the study period, there were 114 patients who received methohexital, of whom 65 received parenteral opiate pre-medication (primarily morphine and fentanyl) and 49 did not. Overall rate of respiratory or cardiovascular complications was 15.9% with no significant difference between those who received opiate pre-medication and those who did not (18.7% vs. 11.0% respectively, $p = .20$). All complications were transient and managed without any long-term sequelae. Overall procedural success was 81% with no difference between the 2 groups ($p = .50$).

Conclusions: In this study, the addition of parenteral opiate pre-medication with methohexital for moderate procedural sedation in the ED did not result in any increase in respiratory or cardiovascular complications nor decrease in procedural success. These findings need further validation with a larger, randomized study.

Pressure-Immobilization Delays Mortality and Increases Intra-compartmental Pressure after Artificial Intramuscular Rattlesnake Envenomation in a Porcine Model

Bush SP, Green SM, Laack TA, Hayes WK, Cardwell MD, Tanen DA

Objectives: To determine if pressure-immobilization (PI) delays mortality and/or elevates intracompartmental pressure after artificial, intramuscular *Crotalus atrox* envenomation in a porcine model.

Methods: We prospectively studied 20 pigs using a randomized, controlled design. After the pigs were anesthetized, *Crotalus atrox* venom (20 mg/kg) was injected with a 22-gauge needle 10 mm deep into the tibialis anterior muscle of the hind leg. Pigs were randomized to receive either PI (applied one minute following envenomation and left in place for the duration of the experiment) or no PI. We measured time to mortality; intracompartmental pressure prior to venom injection and at 2 hours following injection; and leg circumference at a standardized location prior to injection and immediately after mortality. We compared the increase in intracompartmental pressures and leg circumference using the unpaired Student t test. Duration of survival was compared using Kaplan-Meier survival analysis techniques.

Results: The dose of venom resulted in 100% mortality. The mean survival times (minutes \pm SD) were 189 ± 33 with PI and 155 ± 23 without. The effect size (the difference between the 2 groups) was 34 minutes (95% CI = 6 to 62, $P = 0.021$). The mean intracompartmental pressures (mmHg \pm SD) were 67 ± 13 with PI and 24 ± 5 without (effect size: 43 mmHg, 95% CI = 32 to 53, $P < 0.0005$). The mean circumferences (cm \pm SD) were 14.3 ± 0.8 with PI and 19.1 ± 1.0 without (effect size: -4.8 cm, 95% CI = -5.7 to -3.9 , $P < 0.0005$).

Conclusions: PI resulted in significantly longer survival, less swelling, and higher intracompartmental pressures.

The Increasing frequency of Diversion in Los Angeles County

Steele R

Introduction: Overcrowding is a reflection of the status of the safety net, and diversion is a reflection of overcrowding. As core safety net providers it is our job to try and ensure the integrity of the safety net. In order to define the problem of overcrowding we must have objective data. The objective of this study was to analyze yearly diversion hours in a large metropolitan city and to determine if the diversion times in Los Angeles (LA) County are increasing.

Methods: This was a retrospective observational review of diversion data obtained from Redinet. Redinet is the central computer link in the LA county area used to negotiate ambulance traffic, and all diversions must be documented in Redinet. Six years of diversion data (collected on a monthly basis) were reviewed. The data collected included hours on diversion for each month, county versus private hospital and total hours on diversion/year.

Results: Diversion totals for each year (in hours) were 577 in '95, 651 in '96, 740 in '97, 883 in '98, 1,130 in '99, 1,624 in '00 out of 8,760 total hours available. The average rate of increase was 17%. There was a 281% increase in the amount of diversion time over a 6-year period. Private hospitals show an increase each year in diversion of 14%. County hospitals show an increase in diversion per year of 19%. Currently, County hospitals in LA are on Diversion 35% of the time. In the year 2000, hospitals across the board in LA County were on diversion all day 1 out every 5.4 days.

Conclusion: In LA County the "Safety Net" is progressively Unraveling with diversion times trending up each year. County Hospitals in LA are especially being affected by emergency department overcrowding with dramatically increasing diversion times. This may have substantial consequences unless measures to halt and reverse this trend are initiated.

Time, Compassion/Respect, and Thoroughness Are Important Predictors of Overall Patient Satisfaction at an Urban County ER

Braun R

Objective: To determine predictors of overall patient satisfaction (PtSat) at an urban County Emergency Department (ER) with emphasis on three specific components of medical care (Timing, Thoroughness, and Compassion/Respect).

Methods: Cross-sectional prospective study of patients (Pts) who completed treatment over six consecutive days in August 2000. Overall PtSat (a 5 question composite variable accounting for acquiescence bias) was assessed using a multilingual (English, Spanish, or Chinese) questionnaire. 373 Pts completed the survey: - 55% female, mean age 42, avg. medical acuity 1.6 (3-pt scale), avg. health status 2.9 (5-pt scale), mean LOS 9.4 (+/-7.3) hours, 64% uninsured.

Results: Our findings demonstrate overall very favorable PtSat: 88% indicated that they "would recommend this ED." On a 5-pt scale, mean Overall PtSat, was 3.5 (between "good" and "very good"). Questions on "length of time" (wait, treatment, and time spent with provider) had a mean of 3.2. Questions on thoroughness/quality of care had a mean of 3.7. Finally, patients were especially pleased on avg. with their interactions with staff & providers, at a mean score of 3.9. Multivariate regression on all three components of care demonstrated significant positive correlation with Overall PtSat and a reasonably good fit, explaining just over half the variance (Adj. R² = .51). A larger model adding demographic, health, and economic factors improved fit (Adj. R² = .64) and satisfaction with the three medical care components remained the strongest significant predictors (Time, B = .25, Respect, B = .20, Thoroughness, B = .17). Other positive and significant predictors included Health Status, and Age. Female gender and the Number of Previous ER Visits reduced PtSat.

Conclusions: Patients were very satisfied with patient/provider interactions in this urban emergency department and patient satisfaction did not suffer from prejudicial disparities. Satisfaction with Time is the most important predictor of ER PtSat. PtSat was only minimally affected by demographic & socioeconomic factors.

The Value of Cardiac Enzymes in Elderly Patients Presenting to the Emergency Department with Syncope

Grossman SA, Van Epp SA, Arnold RC, Moore RB, Lee LC, Shapiro NI, Parker RA, Wolf RE, and Lipsitz LA.

Background: Most patients admitted to the hospital from the emergency department with syncope do not have myocardial infarction yet routine current practice is to draw serial cardiac enzymes.

Objective: To assess the value of serial cardiac enzymes in elderly patients who present to the ED with syncope.

Methods: A retrospective chart review was performed on consecutive patients age 65 and over presenting with syncope to a teaching hospital ED between 7/1/98 and 6/30/99. Charts were screened for presenting history, cardiac risk factors and outcomes including acute coronary syndromes, myocardial infarction and death. Patients returning to the ED or admitted as an inpatient within 72 hours of discharge were recorded as well.

Results: Of 497 visits, 327 patients met the study criteria, with 99% of charts available for review. 212 patients (65%) had CPK drawn and 12% had Troponin I (TnI) as well. Two patients, 0.94%, (95% confidence interval: 0.01%-3.36%) had positive cardiac enzymes during their hospitalization. CPK was positive in both and TnI, drawn in one patient, was also positive. One of these patients had chest discomfort in addition to a syncopal event. The other patient had dementia and could not recall the details surrounding her syncopal event. In addition, her baseline EKG demonstrated a LBBB, limiting the interpretation of the EKG.

Conclusions: Cardiac enzymes may be of little additional value if drawn routinely on elderly patients who are admitted to the hospital from the emergency department with syncope, unless they have other signs or symptoms suggestive of myocardial ischemia by history such as chest pain or dyspnea, or by EKG, i.e. new STTW abnormalities, ST elevation, or an EKG that is uninterpretable for ischemia.

Exponential Rise in Resource Utilization in the Emergency Department as the Length of Visit Increases

Shneiderman A, Christianson J, Hardin E

Background: Our institution has limited telemetry, stepdown and ICU bed capacity. Patients are commonly monitored in the ED for prolonged periods until a bed of proper acuity is available. There are approximately 45,000 visits per year in the main ED and another 35,000 in the Urgent Care Clinic. **Objective:** Assess gurney occupancy time relative to the length of stay (LOS) in the ED.

Methods: LOS was calculated from our patient tracking system for 21,688 patients that were seen in the main ED during the first 6 months of 2001. We subsequently divided the patients into 5 groups: Group 1 had an ED visit of 6 hours (hrs) or less. Group 2 had a stay of 6-12 hrs, Group 3 stayed 12-24 hrs, Group 4 stayed between 24-48 hrs, and Group 5 stayed > 48 hrs. The percentage of patients in each of the groups was calculated for each month separately, and subsequently averaged over the 6 months. The midpoint of length of stay for each category was multiplied by the percentage of patients in each category for the first 6 months of 2001. The product was termed "Standardized Gurney Hours". This number was normalized to obtain "Standardized Gurney Occupancy" (SGO).

Results: 52% of patient visits were placed into Group 1, and accounted for 17% of the SGO. Group 2 represented 28% of the patients, resulting in 28% of the SGO. Group 3 corresponded to 14% of patients and 29% of the SGO. Group 4 was 5% of the patients and represented 19% of the SGO, and Group 5 was 1% of the patients and represented 7% of the SGO. When Groups 4 and 5 were combined (i.e., patient stay > 24 hrs), they represented 6% of the patients with 26% of the Standardized Gurney Occupancy.

Conclusion: As the ED visit becomes prolonged, the SGO increases exponentially. Those patients that leave the department in less than 6 hrs comprised more than half of the ED visits, and utilized only 17% of the SGO. By comparison, patients who stayed more than 24 hr were 6% of the patients and utilized over 25% of the SGO. This underscores the need of a hospital to have facilities in place to expediently transfer patients out of the ED to the floor or ICU.

Comparison of the Esophageal-Tracheal Combitude (ECT) and Endotracheal Tube (ETT) in the Pre-hospital Setting

Calkins TR, Langdorf MI, Miller K, Hill MA

Study Objectives: To compare success and complication rates between ETC and ETTs by paramedics. Placement with successful ventilation was the primary outcome, with complication rates, survival to admission and discharge, and aspiration pneumonia as secondary measures.

Methods: Retrospective review of three years of EMS runsheets for all patients where an ECT was attempted. Abstracters were hypothesis-blinded, trained and monitored ($Kappa = .7-1.0$). This EMS system uses the ETC primarily as an alternative airway to failed tracheal intubation. Pharmacologically assisted intubation is not used. ETT patients were selected from the EMS QA database for the same period. We reviewed the charts of 19 ECT patients.

Results: ECT insertion was attempted on 200 patients: 140 (70%) successful, 55 (27.5%) failed (some for multiple reasons), and 5 not recorded. An ETT was attempted for 169 patients: 152 (90%) successful, 17 (10%) failed. ECT location was noted in 104: 83 (80%) esophageal, 21 (20%) tracheal. Inability to determine placement of the ETC was due to emesis from both ports in 28 cases and inability to pass the ECT occurred in 29. The ECT caused one patient dental trauma, and one ETC placement was temporally related to the onset of subcutaneous emphysema. Blood in the ETC from pre-existing active upper GI bleed occurred in 10 patients (5.3%) and 6 tubes (3.2%) dislodged. Ninety-one runsheets noted disposition; 18 (19.8%) survived to hospital admission. Of 19 ECT hospital charts reviewed, 5 survived to admission, none to discharge. Average admission ABGs were pH 7.02/pO₂ 288/pCO₂ 57/HCO₃ 15. Length of stay was 1-21 days, with aspiration pneumonia present in 2/5.

Conclusions: Similar to previous reports, ETT success was greater than ECT. In an earlier study, EMT-Ds had a higher ECT success rate (155/195 or 79%) than paramedics here (70%) ($p=.04$, OR 1.67 (95% CI 1.02-2.70)). Successful ECT use may depend on local experience and level of specific training, rather than comprehensive paramedic training.

Parents Signing Children Out Against Medical Advice from the Emergency Department; Investigating the Standard of Care Concept in Physician Management

Salem L, Greenston M, Hardin ME

Objectives: To elicit the practice patterns of board-certified emergency medicine physicians when a parent demands to sign out their child against medical advice.

Methodology: E-mail requests were submitted to board certified, emergency physicians requesting their participation in an anonymous, web-based electronic survey. Physicians who agreed to participate were presented with a fictitious case scenario describing a mother who brings her febrile, lethargic 4-month-old infant into an emergency department. The infant's vital signs were reported to be temperature 104.5 F, heart rate 150, respiratory rate 30 and blood pressure 84/60. The mother, who does not appear to be intoxicated or confused, becomes very upset that the nurse is unable to establish an intravenous line after two attempts. Angrily, she proceeds to pick-up the infant and leave the Emergency Department prior to a complete medical evaluation by the physician. After being presented this fictitious case scenario, subjects were then asked how they would manage the situation if the infant and mother had presented to them in their usual practice setting.

Results: Of the 674 board certified emergency medicine physicians who correctly completed the survey, 214 (32%) physicians stated that they would allow mother to leave with infant and take no further actions; 214 (32%) physicians stated that they would request the mother to sign release from medical liability forms prior to leaving; 131 (19%) stated that they would allow mother to leave with infant but report the case to Child Protective Services afterwards; 115 (17%) physicians stated that they would call security immediately to prevent mother and infant from leaving. The data was analyzed using the Chi-squared test and found to be statistically significant ($p<.05$).

Conclusions: This study suggests that a single 'standard of care' is not being practiced in emergency medicine with regards to the management of parents signing out children AMA and that structured guidelines are needed.

1995-2000 Trends in Emergency Department Utilization of Physician Extenders and Lower Acuity Tracks— A 5-year Longitudinal Report

Phelps MA, Kazzi AA, Gee B, Kim B, Langdorf M

Objectives: Widespread Emergency Department (ED) overcrowding and pervasive financial and managed care pressure to cut staffing costs, limit ED “cost-shifting,” and streamline resource utilization promote the development of alternatives to the traditional model of ED care in which all treatment - regardless of acuity - is provided within the ED by emergency physicians. In some EDs, lower acuity patients may be triaged to a separate track within the ED (e.g., urgent care, fast track, or minor care) and treatment may also be provided by less costly physician extenders (PEs) such as nurse practitioners (NPs) and physician assistants (PAs). This study surveys all EDs in California (CA) regarding their use of lower-acuity tracks (LATs) and physician extenders (PEs) in 2000 for comparison with data collected in 1995.

Methods: Between January-December of both 1995 and 2000, brief surveys regarding ED staffing were mailed to all CA hospitals reported by the American Hospital Association as having, or potentially having an ED, and follow-up calls were made to non-responders.

Results: 291/372 (78%) responded in 2000. 394/421 (94%) of EDs provided data in 1995. The 49 sites included in 1995 but not in 2000 reflect reported ED closures. LATs were found in 47% (137/291) of EDs in 2000, compared to 41% (161/394) in 1995. PEs were utilized by 46% (132/289; 2 missing) of EDs in 2000, up from 32% (125/394) in 1995. In 2000, among EDs that used PEs, 72% (95/132) used PAs and 40% (53/132) used NPs, compared to 66% (82/125) and 38% (47/125) respectively, in 1995. Among the 278 EDs that provided data for both years, there was an 11% increase in PE use [from 97 (35%) to 127 (46%)] and a 5% increase in LATs [from 119 (43%) to 134 (48%)] over the study period.

Conclusions: The use of lower acuity tracks and physician extenders in the ED grew steadily from 1995 to 2000, reflecting an ongoing effort to reduce costs and shift resource utilization within emergency care.

Letter to the Editor

Regarding CaJEM July 2001's "We Told You So"
President's Message

To: A. Antoine Kazzi, MD, FAAEM, FACEP
Vice President, the American Academy of EM
Immediate Past President, CAL/AAEM

Dear Antoine Kazzi,

Thanks for sending me the California Journal of EM. I plan to join AAEM and CAL/AAEM this week.

By the way, I recognized your name as the author of the enlightening editorial "We Told You So!" in the July 2001 issue of The California Journal of Emergency Medicine. I have to tell you that I carried that editorial around in my briefcase for months and then hung it up on the wall at home. I received this one issue by accident when bulk office mail was forwarded to my home address. Your essay made me re-evaluate the five years I had already spent with one of the contract medical groups and forced me to acknowledge that staying on with them would mean paying again for the same failed type of Meriten deals.

Moreover, I was struck with your call for Emergency Physicians to "appreciate the value of citizenship in EM" and this one thought guided my search for a new position.

So you've got my vote for the CAL/ACEP Board of Directors and later for any AAEM position you will run for. Thanks for the good work that you are doing and best of luck to you in your advocacy on our behalf

Ken Johnson, MD, FACEP
Folsom, California